Delineation of Waters of the United States

6201 Horseshoe Bar Road ±63-Acre Site
Placer County, California

Prepared for: U.S. Army Corps of Engineers

Contracted By: Tulip Asset LLC

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Submitted by:

FOOTHILL ASSOCIATES

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1.0 EXECUTIVE SUMMARY

This report presents the results of a delineation of the waters of the United States on the 6201 Horseshoe Bar Road site that may be subject to Federal jurisdiction and regulation under Section 404 of the Clean Water Act. A total of 1.13 acres of waters of the U.S., comprised of 0.15-acre of depressional seasonal wetlands, 0.53 acre of depressional seasonal wetland, 0.01 acre of intermittent drainage, 0.44 acre of perennial drainage, and 0.01 acre of pond were delineated on the site.

2.0 INTRODUCTION

The purpose of this document is to present the results of a formal delineation of jurisdictional waters of the United States, including wetlands, on the ±63-acre 6201 Horseshoe Bar Road site. The site is located within the Town of Loomis, California in Placer County (**Figure 1**).

This report presents the results of Foothill Associates' review of available literature, aerial photographs, soil surveys (**Figure 2**), and fieldwork on the site. These results are summarized to depict jurisdictional waters of the United States following the technical guidelines provided in the 1987 *U.S. Army Corps of Engineers Wetlands Delineation Manual* and the *Arid West Regional Supplement* for identifying wetlands and distinguishing them from aquatic habitats and other nonwetlands. The jurisdictional boundaries for other waters of the United States were identified based on the presence of an ordinary high-water mark (OHWM) as defined in 33 CFR 328.3(e).

The delineation methodology is described in this report, followed by the results of the delineation. Details regarding soils, topography, hydrology, and vegetation are summarized and routine wetland determination data forms are provided in **Appendix B**. A detailed delineation map illustrates waters of the U.S. on the site (**Figure 3**).

3.0 REGULATORY BACKGROUND

The U.S. Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharges of fill material" is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Section 404 of the Clean Water Act requires approval prior to discharging dredged or fill material into the waters of the United States. Typical activities requiring Section 404 permits are:

- Depositing of fill or dredged material in waters of the U.S. or adjacent wetlands;
- Site development fill for residential, commercial, or recreational developments;
- Construction of revetments, groins, breakwaters, levees, dams, dikes, and weirs; and
- Placement of rip-rap and road fills.

Section 10 of the Rivers and Harbors Act of 1899 requires approval prior to the accomplishment of any work in or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters. Typical activities requiring Section 10 permits are:

- Construction of piers, wharves, bulkheads, dolphins, marinas, ramps, floats, intake structures, and cable or pipeline crossings; and
- Dredging and excavation.

Any person, firm, or agency (including federal, state, and local government agencies) planning to work in navigable waters of the United States, or dump or place dredged or fill material in waters of the United States, must first obtain a permit from the Corps. Permits, licenses, variances, or similar authorization may also be required by other federal, state and local statutes.

3.1 Waters of the United States

33 C.F.R. Section 328.3 provides that "waters of the United States" include all waters that are currently used, or were used in the past or are susceptible to use in interstate commerce, all interstate waters and wetlands, and all intrastate lakes, rivers or streams which could affect interstate commerce. In addition, this regulation provides jurisdiction over waters that are tributary to these waters, and "wetlands" adjacent to them. Section 10 and/or Section 404 permits are required for construction activities in these waters. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of water is present. Methods for delineating wetlands and non-tidal waters are described below.

Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit positive indicators of three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the "normal circumstances" for the site.

The lateral regulatory extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the Corps as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

3.2 The SWANCC Decision

The *Solid Waste Agency of Northern Cook County v. the U.S. Army Corps of Engineers*, 531 U.S. 159 (2001), is more commonly referred to as the SWANCC decision. SWANCC involved a challenge to CWA jurisdiction over certain isolated, intrastate, non-navigable ponds in Illinois that formerly had been gravel mine pits, but which, over time, provided habitat for migratory birds. Although these ponds served as migratory bird habitat, they were non-navigable and isolated from the tributary system of other waters regulated under the CWA. In SWANCC, the Supreme Court held that the Army Corps of Engineers had exceeded its authority in asserting CWA jurisdiction pursuant to § 404(a) over the waters at issue based on their use as habitat for migratory birds, pursuant to preamble language, commonly referred to as the Migratory Bird Rule [51 Fed. Reg. 41217 (1986)].

SWANCC squarely eliminates CWA jurisdiction over isolated waters that are intrastate and non-navigable, where the sole basis for asserting CWA jurisdiction is the actual or potential use of the waters as habitat for migratory birds that cross state lines in their migrations. CWA jurisdiction extends to waters, including wetlands, which are adjacent to navigable waters pursuant to the Supreme Court holding in Riverside Bayview Homes, which was endorsed in SWANCC as controlling law. Corps and EPA regulations currently define the term adjacent as "bordering, contiguous, or neighboring" [33 C.F.R.

§ 328.3(b)]. The case law on the precise scope of federal CWA jurisdiction since SWANCC is still developing.

4.0 METHODOLOGY

4.1 Site-Specific References

Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this delineation are listed in **Section 7.0**. Pertinent site-specific reports and general references utilized concurrent with the delineation include the following:

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson manual: vascular plants of California*, second edition. University of California, Berkeley;
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS;
- Federal Emergency Management Agency (FEMA). 1998. *National Flood Insurance Program Q3 Flood Data, Disc 1: California*;
- GretagMacbeth. 2000. *Munsell Soil Color Charts*. New Windsor, NY;
- Lichvar, R.W. 2013. The National Wetland Plant List: 2013 wetland ratings. Phytoneuron 2013-49: 1-241;
- Natural Resource Conservation Service (NRCS). 1980. *Soil Survey of Placer County, Western Part, California*. U.S. Department of Agriculture;
- NRCS. 2010. *Field Indicators of Hydric Soils in the United States*, Version 7. G.W. Hurt, P.M. Whited, and R.F. Pringle (Eds). USDA, NRCS in cooperation with the National Committee for Hydric Soils. Fort Worth, TX;
- NRCS. April 2012. *Hydric Soils List for Placer County, California*. U.S. Department of Agriculture;
- U.S. Geological Survey (USGS). 1967. Photorevised 1981. *Rocklin, California* 7.5-minute series topographic quadrangle. United States Department of the Interior; and
- USGS. May 2002. *Sacramento Urban 0.3-meter DOQQ Imagery*. U.S. Department of the Interior.

4.2 Research and Field Methodology

This delineation utilized the Corps' 1987 three-parameter (vegetation, hydrology, and soils) methodology to delineate jurisdictional waters of the U.S., focusing specifically on jurisdictional wetlands. This methodology requires the collection of data on soils, vegetation, and hydrology at several locations to establish the jurisdictional boundary of wetlands. Additional methods to identify and delineate other waters of the U.S. (e.g.,

streams, drainages, lakes) were used as applicable. The method typically used for delineation of non-wetland waters of the U.S. is the delineation of the OHWM.

A review of current aerial photographs, topographic maps, and soils survey data was conducted before a field review of the delineation site. The initial delineation was conducted on August 2, 7, 8, 29 and September 20 of 2006. The 2006 delineation was updated with additional field surveys on November 19 and 20, 2013. Biologists visually inspected the entire site and collected representative data at points within potential wetland areas and corresponding uplands. The location of each data point is depicted in **Figure 3** and corresponding routine wetland determination data forms are provided in **Appendix B**.

4.3 GPS Data Integration

Boundaries of aquatic features within the site were surveyed and mapped with a Trimble GeoXT Global Positioning System (GPS) hand-held unit. This is a mapping-grade GPS unit capable of real-time differential correction and sub-meter accuracy. The GPS data were downloaded from the unit and differentially corrected utilizing Trimble Pathfinder Office software and appropriate base station data, and then converted to ESRI ® shape file format. Data are typically exported to the Geographic Information System (GIS) software in the State Plane coordinate system (NAD 83) with units as "survey feet." Within the GIS, data are edited and linear features are built into polygons using recorded width information. All wetland shape files are merged to create a single wetland file with calculated acreages. These results are presented in **Figure 3**.

5.0 RESULTS

5.1 Study Area Description, Land Use

5.1.1 Study Area Location

The ±63-acre site is located in the Town of Loomis, California, immediately south and east of Interstate 80 and is bisected by Horseshoe Bar Road. The site is bounded by Interstate 80 on the north, Secret Ravine and Brace Road on the south, and Betty Road to the west. The site is also bound on the west by rural residences and agricultural lands and on the east by rural residences, agricultural lands, and oak woodland. The site is located within Section 10 of Township 11 North, Range 7 East on the *Rocklin, California* USGS 7.5-minute quadrangle map (**Figure 1**).

5.1.2 Land Use

The site primarily consists of agricultural land, portions of which are used for horse and cattle grazing. There are a few structures associated with keeping livestock on a portion of the site immediately north of Horseshoe Bar Road. Local land uses surrounding the site consist of agriculture (including grazing), rural residential development, and commercial development along Brace Road and on the north side of Interstate.

5.1.3 Site History and Description

A review of an archaeological report indicates the site has been utilized for livestock grazing, a rural residence, and limited agricultural activities (Jensen, 2006). Portions of the southern half of the site west of Horseshoe Bar Road have been disced and are currently used as grazed annual grassland. A few sporadic fruit trees occur within the oak woodland west of Horseshoe Bar Road.

5.2 Physical Features

5.2.1 Soils

The Natural Resources Conservation Service (NRCS) has mapped three soil units on the site (**Figure 2**). The soil units that occur on the site include the following: **Andregg coarse sandy loam, 2 to 9 percent slopes**; **Xerorthents, cut and fill**; and **Xerorthents, Placer areas**. General characteristics associated with these soils types are described below.

- **Andregg coarse sandy loam, 2 to 9 percent slopes:** This moderately deep and well-drained soil is found on low hills in the Loomis Basin between 200 and 1,000 feet above mean sea level (MSL). Andregg soils formed in material weathered from coarse grained acid igneous rocks, mainly granodiorite. Permeability in this soil is moderately rapid and available water capacity is low.

Natural vegetation includes annual grasses, herbaceous species, blue oak (*Quercus douglasii*), live oak (*Quercus wislizenii*), and scattered pines (*Pinus* spp.). This soil is used mainly for rangeland, while very limited areas are used for pasture or orchards. The hydric soils list for Placer County identifies one unnamed hydric inclusion located within drainageways of this soil type.

- **Xerorthents, cut and fill**: This soil unit consists of mixed soil material that no longer contains discernable horizons. Cut and fill areas are typically well-drained and surface runoff is very rapid. Permeability and available water capacity are variable. These areas are typically used for highways and urban development. The hydric soils list for Placer County does not identify hydric components or inclusions occurring within this soil type.

- **Xerorthents, Placer areas**: This soil unit consists of stony, cobbly, and gravelly materials adjacent to streams that have been placer mined. The soil material is derived from a mixture of rocks. Permeability, surface runoff, drainage, and available water capacity are variable. Natural vegetation typically includes annual grasses, oaks (*Quercus* spp.), willows (*Salix* spp.), alders (*Alnus* spp.), and cottonwoods (*Populus* spp.). These soils have some value for grazing and watering livestock. The hydric soils list for Placer County identifies one unnamed hydric inclusion located within drainageways of this soil type.

5.2.2 Topography

Mildly undulating topography and moderate inclines typify the site and the surrounding area. The topography of the western portions of the site is dominated by a series of more or less rolling hills and intervening low lying areas between them. Generally, the hills and drainageways are oriented in a northeast to southwest alignment. Slopes throughout the site range from approximately two to 50 percent. Elevation ranges from approximately 340 and 370 feet above MSL.

5.2.3 Regional Hydrology

The site is located within the Loomis Basin east of Interstate 80 and spans Horseshoe Bar Road. The Loomis Basin is located at the base of the Sierra-Nevada Mountains and lies between "intermediate" and "semi-Mediterranean" climate zones. The Loomis area typically has a wet season, which occurs from late fall through early spring, and a dry season, which occurs from late spring through early fall (PPGN 2006). Historically, several drainages in this area have been dredged in placer mining operations, which have resulted in the alteration of many waterways.

5.2.4 Site-Specific Hydrology

Portions of the site are within the historic 100-year floodplain of Secret Ravine (FEMA 1998). Annual average precipitation in the Loomis area is approximately 39 inches (PPGN 2006). Hydrologic features identified and mapped within the site include depressional seasonal wetlands, riverine seasonal wetlands, and perennial drainages

(**Figure 3**). Diagnostic characteristics of the features mapped on the site are defined and discussed in **Section 5.4**.

The majority of the seasonal wetlands occur within the southern portion of the oak woodland south of Horseshoe Bar Road. The depressional and riverine seasonal wetlands on the southern half of the site within the oak woodland are predominantly charged by the natural sheeting effect of surface water conducted by the surrounding upland topography, as well as direct rainfall. The riverine seasonal wetland identified as feature #6 is supplied water from an offsite ditch via a culvert. Once the depressional and riverine seasonal wetlands within the oak woodland area reach maximum inundation capacity, water flow likely continues toward Secret Ravine via overland sheet flow.

A perennial drainage flows across the northeastern portion of the site into Secret Ravine offsite. The eastern branch of the perennial drainage connects to a pond, of which a portion is onsite. Secret Ravine enters the western half of the site then continues to flow southeast along the southern property boundary as it meanders across the property boundary until exiting the site.

5.3 Vegetation

Three dominant vegetation assemblages occur on the site including: annual grassland, oak woodland, and Great Valley mixed riparian forest. A detailed description of each of vegetation type is described below.

5.3.1 Annual Grassland

Annual grassland is characterized primarily by an assemblage of non-native grasses and forbs. This vegetation community is found in the western half of the property adjacent to Interstate 80. Much of the vegetation in this community is common to the Central Valley. Dominant grass species within this community consist of soft chess (*Bromus hordeaceous*), ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), Italian rye grass (*Festuca perennis*), medusahead (*Elymus caput-medusae*), and little quaking grass (*Briza minor*). Other herbaceous vegetation present were California poppy (*Eschscholzia californica*), clustered dock (*Rumex conglomerates*), rose clover (*Trifolium hirtum),* tarweed (*Centromadia pungens*), star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), vetch (*Astragalus* spp.*),* bindweed (*Convolvulus arvensis*), elegant broadiaea (*Brodiaea elegans*), and short-podded mustard (*Hirschfeldia incana*).

5.3.2 Oak Woodland

This community covers primarily the southern portion of the site adjacent to Secret Ravine. The overstory of this community is dominated by interior live oaks with scattered valley oaks (*Quercus lobata*), blue oaks, and foothill pines (*Pinus sabiniana*). The understory contains scattered toyon (*Adenostoma fasiculata*), California buckeye (*Aesculus californica*), coyotebrush (*Baccharis pilularis*), California blackberry (*Rubus ursinus*), whitethorn ceanothus (*Ceanothus cordulatus*), and poison oak (*Toxicodendron diversilobum*). Several blue elderberry shrubs (*Sambucus mexicana*) were found within

the oak woodland as well. Naturalized orchard trees within the oak woodland habitat included apple (*Malus* spp.), pear (*Pyrus* spp.), and common fig (*Ficus carica*).

5.3.3 Great Valley Mixed Riparian Forest

This community is associated primarily with the margins of Secret Ravine on the southern and eastern portions of the site. The overstory of this community contains willows, Fremont's cottonwood (*Populus fremontii*), and white alders (*Alnus rhombifolia*). The shrub layer contains blue elderberry, Himalayan blackberry (*Rubus armeniacus*), and poison oak.

5.4 Classification of Waters of the United States

Jurisdictional waters of the U.S. are classified into multiple types based on topography, edaphics (soils), vegetation, and hydrologic regime. Primarily, the Corps establishes two distinctions: wetland and nonwetland waters of the U.S. Nonwetland waters are commonly referred to as other waters of the U.S.

Potential jurisdictional wetland types mapped within the site include the following: depressional seasonal wetland and riverine seasonal wetland. Potential other waters of the U.S. mapped within the site include: intermittent drainage, pond, and perennial drainages. The characteristics of these mapped features are described below.

5.4.1 Depressional Seasonal Wetland

A total of **0.15-**acre of depressional seasonal wetland has been delineated within the site. Depressional seasonal wetlands exhibit a hydrologic regime dominated by saturation, rather than inundation. Plant species in depressional seasonal wetlands are adapted to withstand short periods of saturation or saturated soils conditions but will not withstand prolonged periods of inundation, as is common in vernal pools. Several hydrophytic and water tolerant plant species were found within the depressional seasonal wetland on the site including tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), rabbitsfoot grass (*Polypogon monspeliensis*), Italian rye grass, Himalayan blackberry, and California blackberry. The majority of depressional seasonal wetlands are located in the southern portion of the western half of the site near Secret Ravine. In addition, one depressional season wetland is located next to Interstate 80 at the northwestern corner of the western half of the site, and another is located in the northwest portion of the eastern half of the site (**Figure 3**).

5.4.2 Riverine Seasonal Wetland

A total of **0.53-**acre of riverine seasonal wetland has been delineated within the site. Riverine seasonal wetlands are defined by a hydrologic regime dominated by unidirectional flow of water. Riverine seasonal wetlands typically occur in topographic folds or swales and represent natural drainages that convey sufficient water to support wetland vegetation. They typically convey water during and shortly after storm events. Riverine seasonal wetlands usually have a moderately defined bed and bank. As in

depressional seasonal wetlands, plant species found within riverine seasonal wetlands are typically adapted to a hydrologic regime dominated by saturation rather than inundation. Plant species observed within these features on the site include cocklebur (*Xanthium strumarium*), spearmint (*Mentha spicata*), rabbitsfoot grass, common spikerush (*Eleocharis macrostaycha*), bog yellow cress (*Rorippa palustris*), willows, valley oaks, and tall flatsedge. Riverine seasonal wetlands are located in the southern portion of the site (**Figure 3**).

5.4.3 Intermittent Drainage

A total of **0.01**-acre of intermittent drainage has been delineated within the site (**Figure 3**). Intermittent drainages, as in ephemeral drainages, are features that do not meet the three-parameter criteria for vegetation, hydrology and soils, but do convey water and exhibit an ordinary high water mark. Water flows within intermittent drainages are fed primarily by a seasonally perched groundwater table and supplemented by precipitation and stormwater runoff. After the initial onset of rains, these features have persistent flows throughout and past the end of the rainy season. Typically, these features exhibit a defined bed and bank and show signs of scouring as a result of rapid flow events. The bed of intermittent drainages consists of cobble often interrupted with bedrock. Hydrophytic vegetation may occur in association with intermittent drainages. The intermittent drainage on the site flows from the riverine seasonal wetland in the southwest corner of the project towards Secret Ravine.

5.4.4 Perennial Drainage

A total of **0.44**-acre of perennial drainage has been delineated within the site. Perennial drainages are features that may not meet the three-parameter criteria for vegetation, hydrology, and soils but do convey water and exhibit an ordinary high water mark. Perennial drainages generally convey unidirectional water flows throughout the entire year. Perennial drainages typically consist of a channel, bed, and bank and are mostly devoid of vegetation due to the scouring effect of flowing water. Perennial drainages are often bordered by wetland vegetation communities of various composition and cover depending on flow rates, duration of flows and soil types. Plants observed growing on the banks of the perennial drainage include cottonwood, white alder, valley oak, willow, California and Himalayan blackberry, and in certain sections, cattails (*Typha* sp.). Portions of the perennial drainages that occur on the site are located along the southern boundary of the western half of the site and crossing the eastern portion of the site (**Figure 3**).

5.4.5 Pond

A total of **0.01**-acre of pond has been delineated in the northeast corner of the site (**Figure 3**). The pond on the site is charged by the perennial drainage that traverses the central portion of the northern half of the site and flow east towards the west side of the pond. Ponds are often a result of the placement of a dam within jurisdictional waters, as is the suspected origin of the feature onsite. According to the supply of water from a perennial drainage that is likely jurisdictional, the close proximity of the pond to Secret

Ravine, and likelihood that pond flows into Secret Ravine; this feature would likely be subject to Corps jurisdiction.

6.0 CONCLUSIONS

Application of routine wetland delineation techniques revealed the presence of features that appear to conform to the definition of waters of the U.S pursuant to Section 404 of the Federal Clean Water Act. Potential jurisdictional wetland types mapped within the site include depressional seasonal wetland and riverine seasonal wetland. Other waters of the U.S. delineated within the site include perennial drainage, intermittent drainage, and a pond. In addition, portions of the site nearest the perennial drainage are located within the 100-year floodplain.

The final determination of the extent of Corps' jurisdiction on the property pursuant to Section 404 of the Federal Clean Water Act will depend on the results of field verification by the Corps. Areas deemed jurisdictional will then be subject to the regulatory requirements of the federal Clean Water Act including permitting and mitigation, as required.

Table 1 below provides acreage per class and summarizes the total acreage of wetlands and waters on the site.

Table 1 — Waters of the U.S.: Acreage According to Feature Classification

Classification	Total Acreage
Depressional Seasonal Wetland	0.15
Riverine Seasonal Wetland	0.53
Intermittent Drainage	0.01
Perennial Drainage	0.44
Pond	0.01
TOTAL	**1.13**

7.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson manual: vascular plants of California*, second edition. University of California, Berkeley

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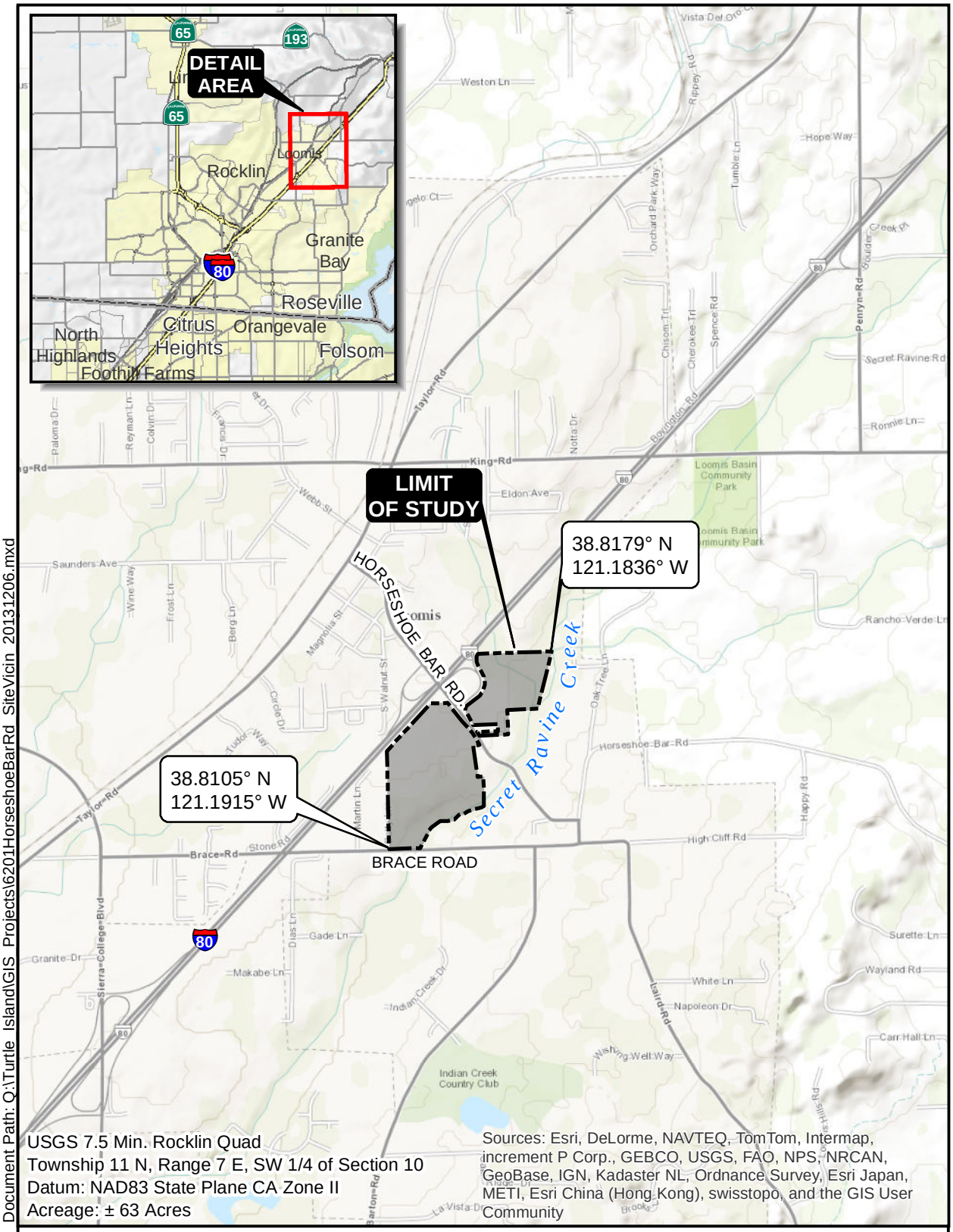
U.S. Geological Survey (USGS). 1967 (Photorevised 1981). *Rocklin, California* 7.5-minute series topographic quadrangle. U.S. Department of the Interior.

USGS. May 2002. *Sacramento Urban 0.3-meter DOQQ Imagery*. U.S. Department of the Interior.



USGS 7.5 Min. Rocklin Quad
Township 11 N, Range 7 E, SW 1/4 of Section 10
Datum: NAD83 State Plane CA Zone II
Acreage: ± 63 Acres

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

SITE AND VICINITY

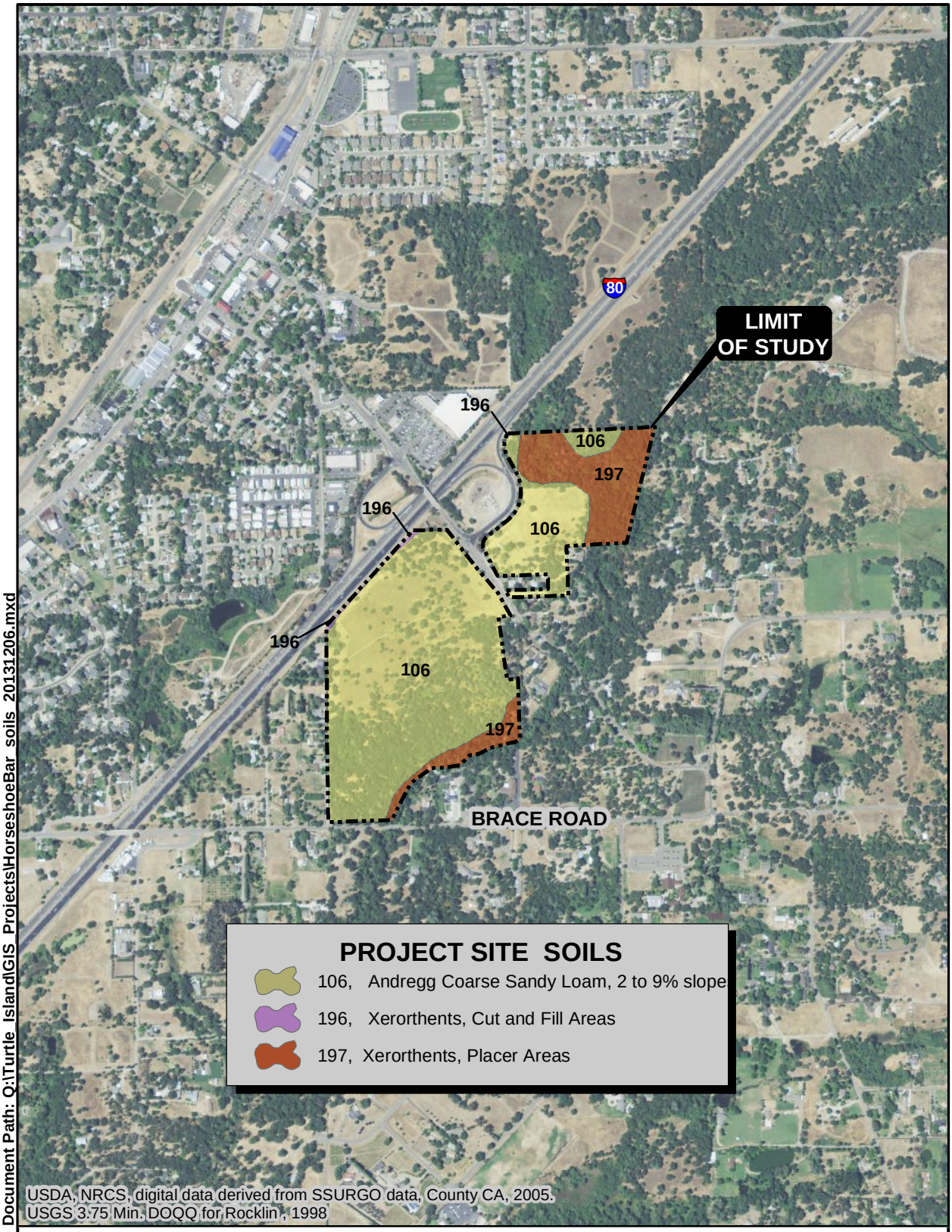
FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 750 1500
SCALE IN FEET

Drawn By: MUB
Date: 12/06/2013

FIGURE 1



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USDA, NRCS, digital data derived from SSURGO data, County CA, 2005.
USGS 3.75 Min. DOQQ for Rocklin , 1998

SOILS

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N

0 500 1000
SCALE IN FEET

Drawn By: MUB
Date: 12/06/2013

FIGURE 2

6201 HORSESHOE BAR ROAD

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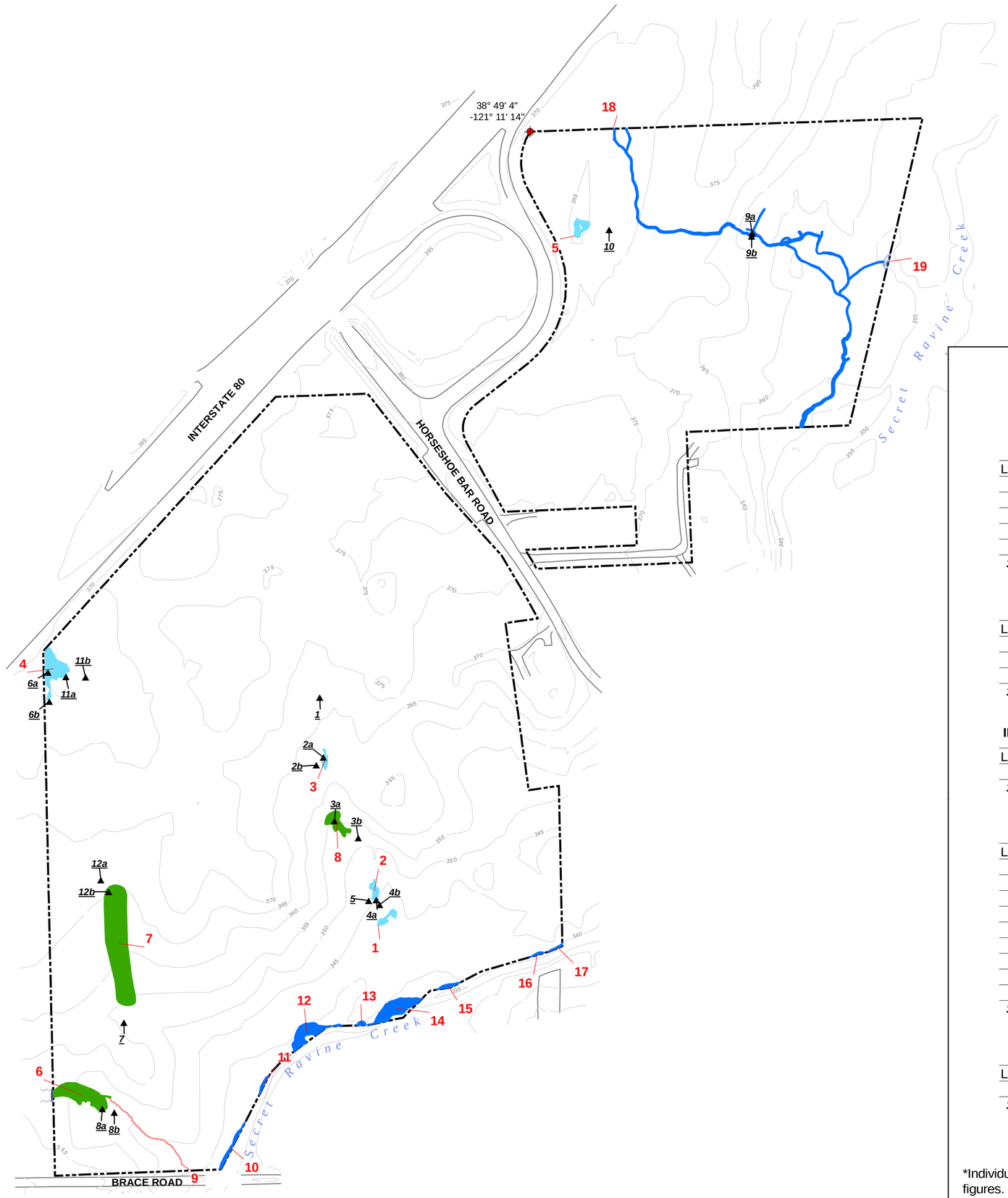

INDIVIDUAL WOUS FEATURE ACREAGES

DEPRESSIONAL SEASONAL WETLAND

Label	Acres*
1	0.016
2	0.017
3	0.010
4	0.081
5	0.026
SUBTOTAL:	0.150

RIVERINE SEASONAL WETLAND

Label	Acres*
6	0.119
7	0.366
8	0.043
SUBTOTAL:	0.528

INTERMITTENT DRAINAGE

Label	Acres*
9	0.006
SUBTOTAL:	0.006

PERENIAL DRAINAGE

Label	Acres*
10	0.019
11	0.006
12	0.066
13	0.005
14	0.084
15	0.009
16	0.004
17	0.004
18	0.244
SUBTOTAL:	0.441

POND

Label	Acres*
19	0.008
SUBTOTAL:	0.008

TOTAL**	1.13

*Individual acreage reported to 3 significant figures.

**Based on sum of subtotals at 2 significant figures.

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WATERS OF THE U.S.

CLASSIFICATION	ACREAGE
Depressional Seasonal Wetland (DSW)	0.15
Riverine Seasonal Wetland (RSW)	0.53
Intermittent Drainage (ID)	0.01
Perennial Drainage (PD)	0.44
Pond	0.01
TOTAL	1.13

OTHER FEATURES

- Data Points
- Culvert
- Project Boundary

NOTES

- Waters of the U.S. are subject to U.S. Army Corps of Engineers verification.
- Digital base data provided by Burrell Consulting. Contour interval is 5 feet.
- The Hydrologic Unit Code for this site is 18020111.
- This delineation utilizes the Corps' 1987 three-parameter methodology and Rapanos guidbook 2007 and the Arid West Suplement to delineate jurisdictional waters of the U.S.
- Waters of the U.S. were mapped using a Trimble Global Positioning System (GPS) or by using GPS reference points and aerial photo interpretation.

0 200 400

SCALE IN FEET

FIGURE 3

6201 Horseshoe Bar Road

DELINEATED WATERS OF THE U.S.

FOOTHILL ASSOCIATES

ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

DATE: 05/13/2008 DRAWN BY: MUB

REVISION: 12/10/2013 DELINEATED BY: DWB, ELF, EMC, JCH, KCV

P 24X24

6201 HORSESHOE BAR ROAD

Document Name: Wetland_Delineation_TurtleIsland_20131121 : 12/10/2013 1:28:23 PM

Appendix A — Contact Information

Client Contact Information:

Steve McCullagh
Oakmont Senior Living LLC
220 Concourse Boulevard
Santa Rosa, CA 95403

Delineation Conducted by:

Meredith Branstad, Biologist
Kirk Vail, Biologist
Foothill Associates
590 Menlo Drive, Suite 5
Rocklin, CA 95765

Appendix B — Routine Wetland Determination Data Forms

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 1 Plot ID: --

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Bromus hordeaceus (30%)	HERB	FACU-
2. Torilis arvensis (30%)	HERB	UPL
3. Rubus discolor (40%)	SHRUB	FACW*
4. Quercus douglassi (10%)	TREE	UPL
5. Quercus lobata (10%)	TREE	FAC*
6. Baccharis salicifolia (10%)	SHRUB	FACW
7.		
8.		

Associate Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 40 %

Remarks: Insufficient hydrophytic vegetation.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 3/2	N/A	N/A	gravelly clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydric soil indicators. Unable to dig past 6 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	○ Yes	◉ No
Wetland Hydrology Present?	○ Yes	◉ No
Hydric Soils Present?	○ Yes	◉ No

Is this Sampling Point Within a Wetland? ○ Yes ◉ No

Remarks: Does not meet all three wetland parameters; upland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: DSW Transect ID: 2 Plot ID: a

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Cyperus eragrostis (55%)	HERB	FACW
2. Rubus discolor (5%)	SHRUB	FACW*
3.		
4.		
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Bromus hordeaceus (tr)	HERB	FACU-
10. Lolium perenne (tr)	HERB	FAC*
11. Polypogon monspeliensis (10%)	HERB	FACW+
12. Cirsium sp. (15%)	HERB	
13. Torilis arvensis (10%)	HERB	UPL
14. Rumex crispus (5%)	HERB	FACW-
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100 %

Remarks: Dominance of hydrophytic vegetation.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water:	N/A (in.)
Depth to Free Water in Pit:	N/A (in.)
Depth to Saturated Soil:	N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [x] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [x] Oxidized Root Channels in Upper 12 Inches
- [x] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [x] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Sufficient secondary hydrology indicators. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10	A	10YR 3/2	2.5YR 3/6	few/fine/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles. Unable to dig past 10 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	⊙ Yes	○ No
Wetland Hydrology Present?	⊙ Yes	○ No
Hydric Soils Present?	⊙ Yes	○ No

Is this Sampling Point Within a Wetland? ⊙ Yes ○ No

Remarks: Meets all three wetland parameters; depressional seasonal wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 2 Plot ID: b

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Bromus diandrus (40%)	HERB	NI
2. Torilis arvensis (30%)	HERB	UPL
3. Rubus discolor (40%)	SHRUB	FACW*
4. Quercus wislizenii (70%)	TREE	UPL
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Rumex crispus (tr)	HERB	FACW-
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 25 %

Remarks: Insufficient hydrophytic vegetation.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Other: topographic map.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? (•) Yes ( ) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 3/3	7.5YR 4/6	few/fine/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydric soil indicators. Unable to dig past 8 inches due to dry, rocky soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ( ) Yes (•) No

Wetland Hydrology Present? ( ) Yes (•) No

Hydric Soils Present? ( ) Yes (•) No

Is this Sampling Point Within a Wetland? ( ) Yes (•) No

Remarks: Does not meet all three wetland parameters; upland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (•) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (•) No Is the area a potential Problem Area? ( ) Yes (•) No (If needed, explain on reverse.)	Community ID: RSW Transect ID: 3 Plot ID: a

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Lolium perenne (40%)	HERB	FAC*
2. Rubus discolor (30%)	SHRUB	FACW*
3. Salix sp. (20%)	TREE	
4. Quercus lobata (20%)	TREE	FAC
5. Toxocodendron diversil. (10%)	SHRUB	UPL
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Bromus hordeaceus (tr)	HERB	FACU-
10. Cyperus eragrostis (5%)	HERB	FACW
11. Cirsium sp. (10%)	HERB	
12. Quercus wislizenii (5%)	TREE	UPL
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 80 %

Remarks: Dominance of hydrophytic vegetation. Assuming Salix species is FAC or greater based on hydrology and associate plant species.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [x] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [x] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [x] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Sufficient hydrology indicators. Satisfies FAC-neutral test. Other: topographic map.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6	A	10YR 2/1	N/A	N/A	sandy clay loam
6-10	A	10YR 4/1	7.5YR 5/6	comm/med/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles. Unable to dig past 10 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	◉ Yes	○ No
Wetland Hydrology Present?	◉ Yes	○ No
Hydric Soils Present?	◉ Yes	○ No

Is this Sampling Point Within a Wetland? ◉ Yes ○ No

Remarks: Meets all three wetland parameters; riverine seasonal wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 3 Plot ID: b

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Cirsium sp. (50%)	HERB	
2. Torilis arvensis (20%)	HERB	UPL
3. Rubus discolor (20%)	SHRUB	FACW*
4. Quercus wislizenii (10%)	TREE	UPL
5. Salix sp. (10%)	TREE	
6. Toxocodendron divers. (10%)	SHRUB	UPL
7.		
8.		

Associate Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 40 %

Remarks: Insufficient hydrophytic vegetation. Cirsium species is likely vulgare, which is FACU. Assuming Salix species is FAC or greater.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Does not satisfy FAC-neutral test. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 2/1	N/A	N/A	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma matrix. Unable to dig past 8 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	○ Yes	◉ No
Wetland Hydrology Present?	○ Yes	◉ No
Hydric Soils Present?	◉ Yes	○ No

Is this Sampling Point Within a Wetland? ○ Yes ◉ No

Remarks: Does not meet all three wetland parameters; upland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: DSW Transect ID: 4 Plot ID: a

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Lolium perenne (80%)	HERB	FAC*
2. Rubus discolor (10%)	SHRUB	FACW*
3. Quercus lobata (15%)	TREE	FAC
4. Quercus wislizenii (10%)	TREE	UPL
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Hordeum marinum (10%)	HERB	FAC
10. Cyperus eragrostis (5%)	HERB	FACW
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75 %

Remarks: Dominance of hydrophytic vegetation.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [x] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12 Inches
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [x] FAC-Neutral Test
- [x] Other (Explain in Remarks)

Remarks: Sufficient hydrology indicators. Satisfies FAC-neutral test. Other: topographic map. Cracks in soil indicate water pools within feature. Feature is depressional in shape. Water appears to flow into attached riverine seasonal wetland.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10	A	10YR 3/1	7.5YR 4/6	comm/med/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☑ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles. Also observed soft manganese concretions. Unable to dig past 10 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	◉ Yes ○ No	Is this Sampling Point Within a Wetland? ◉ Yes ○ No
Wetland Hydrology Present?	◉ Yes ○ No	
Hydric Soils Present?	◉ Yes ○ No	

Remarks: Meets all three wetland parameters; depressional seasonal wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (•) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (•) No Is the area a potential Problem Area? ( ) Yes (•) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 4 Plot ID: b

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Torilis arvensis (40%)	HERB	UPL
2. Rubus discolor (20%)	SHRUB	FACW*
3. Quercus wislizenii (30%)	TREE	UPL
4. Bromus diandrus (20%)	HERB	NI
5. Cirsium sp. (20%)	HERB	
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Rumex crispus (tr)	HERB	FACW-
10. Quercus lobata (5%)	TREE	FAC
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 20 %

Remarks: Insufficient hydrophytic vegetation. Assuming Cirsium species is vulgare which is FACU.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs
- ☑ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Does not pass FAC-neutral test. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 3/2	7.5YR 5/8	comm/med/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles. Unable to dig past 8 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	○ Yes	◉ No
Wetland Hydrology Present?	○ Yes	◉ No
Hydric Soils Present?	◉ Yes	○ No

Is this Sampling Point Within a Wetland? ○ Yes ◉ No

Remarks: Does not meet all three wetland parameters; upland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Elaine Flock Eric Christensen	Date: 08/02/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (•) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (•) No Is the area a potential Problem Area? ( ) Yes (•) No (If needed, explain on reverse.)	Community ID: RSW Transect ID: 5 Plot ID: --

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Cyperus eragrostis (40%)	HERB	FACW
2. Rubus discolor (10%)	SHRUB	FACW*
3. Eleocharis macrostachya (12%)	HERB	OBL
4.		
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Unknown grass (10%)	HERB	
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100 %

Remarks: Dominance of hydrophytic vegetation. Bare soil makes up remainder of herbaceous layer.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs
- ☑ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☑ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☑ Other (Explain in Remarks)

Remarks: Sufficient hydrology indicators. Satisfies FAC-neutral test. Other: topographic map. Cracks in soil indicate water pools within feature. Water appears to flow toward intermittent drainage.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-10	A	10YR 3/1	7.5YR 4/6	comm/med/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☑ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles. Also observed soft manganese concretions. Unable to dig past 10 inches due to dry, rocky soils. Soil at data point similar, but not an exact match of mapped soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ◉ Yes ○ No

Wetland Hydrology Present? ◉ Yes ○ No

Hydric Soils Present? ◉ Yes ○ No

Is this Sampling Point Within a Wetland? ◉ Yes ○ No

Remarks: Meets all three wetland parameters; riverine seasonal wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace
Applicant/Owner: KOBRA Properties
Investigator: David Bise
Eric Christensen

Date: 08/07/2006
County: Placer
State: California

Do Normal Circumstances exist on the site? (●) Yes ( ) No
Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No
Is the area a potential Problem Area? ( ) Yes (●) No
(If needed, explain on reverse.)

Community ID: DSW
Transect ID: 6
Plot ID: a

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Cynodon dactylon (65%)	HERB	FAC
2. Quercus wislizenii (20%)	TREE	UPL
3. Rubus discolor (5%)	SHRUB	FACW*
4.		
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Cyperus eragrostis (2%)	HERB	FACW
10. Epilobium sp. (1%)	HERB	FACW
11. Rumex crispus (5%)	HERB	FACW-
12. Lolium perenne (3%)	HERB	FAC*
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 66 %

Remarks: Sufficient hydrophytic vegetation.

HYDROLOGY

[ ] Recorded Data (Describe in Remarks):
- [ ] Stream, Lake, or Tide Gauge
- [x] Aerial Photographs
- [x] Other

[ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)
Depth to Free Water in Pit: N/A (in.)
Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [x] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [x] Oxidized Root Channels in Upper 12 Inches
- [x] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [x] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Sufficient hydrology indicators. Feature is within a topographic depression containing water-stained leaves. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Xerorthents, cut and fill areas

Drainage Class: Variable

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6	A	7.5YR 4/2	5YR 5/6	many/med/prom	sandy loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators- low chroma soils with mottles. Unable to dig past 6 inches due to dry, rocky soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ◉ Yes ○ No
Wetland Hydrology Present? ◉ Yes ○ No
Hydric Soils Present? ◉ Yes ○ No

Is this Sampling Point Within a Wetland? ◉ Yes ○ No

Remarks: Meets all three wetland parameters; depressional seasonal wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: David Bise Eric Christensen	Date: 08/07/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 6 Plot ID: b

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Centaurea solstitialis (50%)	HERB	UPL
2. Centromadia pungens (30%)	HERB	FAC
3.		
4.		
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Bromus hordeaceus (15%)	HERB	FACU-
10. Trifolium hirtum (10%)	HERB	UPL
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50 %

Remarks: Insufficient hydrophytic vegetation.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs
- ☑ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water:	N/A (in.)
Depth to Free Water in Pit:	N/A (in.)
Depth to Saturated Soil:	N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations
Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8	A	10YR 3/3	N/A	N/A	sandy loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydric soil indicators. Unable to dig past 8 inches due to dry, rocky soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ○ Yes ◉ No
Wetland Hydrology Present? ○ Yes ◉ No
Hydric Soils Present? ○ Yes ◉ No

Is this Sampling Point Within a Wetland? ○ Yes ◉ No

Remarks: Does not meet all three wetland parameters; upland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Eric Christensen	Date: 09/20/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 7 Plot ID: --

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Torilis arvensis (30%)	HERB	UPL
2. Cynosurus echinatus (40%)	HERB	UPL
3. Bromus diandrus (25%)	HERB	NI
4. Quercus wislizenii (80%)	TREE	UPL
5.		
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Toxicodendron diversil. (3%)	HERB	UPL
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0 %

Remarks: Insufficient hydrophytic vegetation.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs
- ☑ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Other: topographic map.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2-9% slopes

Drainage Class: Well Drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-18	A	7.5YR 3/3	N/A	N/A	sandy loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☐ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydric soil indicators.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ○ Yes ◉ No

Wetland Hydrology Present? ○ Yes ◉ No

Hydric Soils Present? ○ Yes ◉ No

Is this Sampling Point Within a Wetland? ○ Yes ◉ No

Remarks: Does not meet all three wetland parameters; upland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Eric Christensen	Date: 09/20/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (•) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (•) No Is the area a potential Problem Area? ( ) Yes (•) No (If needed, explain on reverse.)	Community ID: Rip Wet Transect ID: 8 Plot ID: a

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Xanthium strumarium (25%)	HERB	FAC+
2. Salix sp. (18%)	TREE	
3. Rubus discolor (13%)	SHRUB	FACW*
4. Mentha spicata (13%)	HERB	OBL
5. Quercus lobata (7%)	TREE	FAC*
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Lolium perenne (10%)	HERB	FAC*
10. Polypogon monspeliensis (5%)	HERB	FACW+
11. Rorippa palustris (2%)	HERB	OBL
12. Quercus wislizenii (5%)	TREE	UPL
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100 %

Remarks: Dominance of hydrophytic vegetation. Assuming Salix species is FAC or greater based on hydrology and other plant species.

HYDROLOGY

- [ ] Recorded Data (Describe in Remarks):
  - [ ] Stream, Lake, or Tide Gauge
  - [x] Aerial Photographs
  - [x] Other
- [ ] No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [x] Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- [x] Oxidized Root Channels in Upper 12 Inches
- [x] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [x] FAC-Neutral Test
- [ ] Other (Explain in Remarks)

Remarks: Sufficient hydrology indicators. Satisfies FAC-neutral test. Other: topographic map.

SOILS

Map Unit Name (Series and Phase): Andregg coarse sandy loam, 2 to 9% slopes

Drainage Class: Well drained

Taxonomy (Subgroup): Ultic Haploxerolls

Field Observations Confirm Mapped Type? ○ Yes ◉ No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 4/1	5YR 5/8	many/coarse/prom.	sandy clay loam
4-8	A	10YR 4/2	2.5YR 3/4	many/coarse/prom.	sandy clay

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☑ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles and large, soft black concretions believed to be Manganese. Unable to dig past 8 inches due to dry, rocky soils.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? ◉ Yes ○ No

Wetland Hydrology Present? ◉ Yes ○ No

Hydric Soils Present? ◉ Yes ○ No

Is this Sampling Point Within a Wetland? ◉ Yes ○ No

Remarks: Meets all three wetland parameters; riparian wetland.

Approved by HQUSACE 3/92

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Loomis Marketplace Applicant/Owner: KOBRA Properties Investigator: Eric Christensen	Date: 09/20/2006 County: Placer State: California
Do Normal Circumstances exist on the site? (●) Yes ( ) No Is the site significantly disturbed (Atypical Situation)? ( ) Yes (●) No Is the area a potential Problem Area? ( ) Yes (●) No (If needed, explain on reverse.)	Community ID: UPL Transect ID: 8 Plot ID: b

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Torilis arvensis (20%)	HERB	UPL
2. Cynosurus echinatus (20%)	HERB	UPL
3. Quercus wislizenii (20%)	TREE	UPL
4. Rubus discolor (5%)	SHRUB	FACW*
5. Salix sp. (10%)	TREE	
6.		
7.		
8.		

Associate Plant Species	Stratum	Indicator
9. Mentha spicata (1%)	HERB	OBL
10. Bromus diandrus (15%)	HERB	NI
11. Polypogon monspeliensis (1%)	HERB	FACW+
12. Hordeum murinum (15%)	HERB	NI
13. Lolium perenne (10%)	HERB	FAC*
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 40 %

Remarks: Insufficient hydrophytic vegetation. Assuming Salix species is FAC or greater.

HYDROLOGY

☐ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☑ Aerial Photographs
- ☑ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: N/A (in.)

Depth to Free Water in Pit: N/A (in.)

Depth to Saturated Soil: N/A (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: Insufficient hydrology indicators. Other: topographic map.

SOILS

Map Unit Name
(Series and Phase): Xerorthents, Placer Areas

Drainage Class: D

Taxonomy (Subgroup): Xerorthents

Field Observations
Confirm Mapped Type? (•) Yes ( ) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4	A	10YR 3/2	7.5YR 4/4	comm/fine/prom	loamy sand
5-12	A	10YR 3/2	7.5YR 2.5/3	comm/med/prom	sandy clay loam

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☑ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☐ Listed on Local Hydric Soils List
- ☐ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: Sufficient hydric soil indicators - low chroma soil with mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	( ) Yes	(•) No
Wetland Hydrology Present?	( ) Yes	(•) No
Hydric Soils Present?	(•) Yes	( ) No

Is this Sampling Point Within a Wetland? ( ) Yes (•) No

Remarks: Does not meet all three wetland parameters; upland.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 9a

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): C Lat: 38.81715 Long: -121.18547 Datum: NAD 83

Soil Map Unit Name: Xerorthents, placer areas NWI classification: Adjacent Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Wetland is a four foot strip along both banks, 30 m long north, 20 m long south

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. n/a			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. n/a			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Persicaria punctata	10	N	OBL
2. Leersia oryzoides	40	Y	OBL
3. Juncus balticus	5	N	FACW
4. Cyperus eragrostis	2	N	FACW
5. Verbena bonariensis	3	N	FACW
6.			
7.			
8.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	5
FACW species	7	x 2 =	14
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	57 (A)		64 (B)

Prevalence Index = B/A = 1.1

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 9a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	90	10YR 4/6	10	RM	PL	sandy cla	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ✓ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Adjacent to perennial stream provides frequent source of water.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 9b

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): C Lat: 38.81715 Long: -121.18547 Datum: NAD 83

Soil Map Unit Name: Xerorthents, placer areas NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

This area considered riparian wetland in 2007. Valley oak and Himalayan blackberry indicator status changed to FACU. Therefore, dominant vegetation is no longer hydrophytic.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laevigata	40	Y	FACW
2. Quercus lobata	10	Y	FACU
3. Quercus wislizeni	2	N	UPL
4.			
	52	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armenicus	60	Y	FACU
2. Phytolacca americana	2	N	FAC
3.			
4.			
5.			
	62	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Bromus diandrus	3	Y	UPL
2. Torilis arvensis	2	Y	UPL
3. Toxicodendron diversiloba	5	Y	UPL
4.			
5.			
6.			
7.			
8.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	40	x 2 =	80
FAC species	2	x 3 =	6
FACU species	80	x 4 =	320
UPL species	12	x 5 =	60
Column Totals:	134 (A)		466 (B)

Prevalence Index = B/A = 3.47

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 9b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	95	10YR 4/6	5	RM	PL	sandy cla	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 10

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): C Lat: 38.81757 Long: -121.18668 Datum: NAD 83

Soil Map Unit Name: Xerorthents, placer areas NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

This area considered riparian wetland in 2007. Valley oak and Himalayan blackberry indicator status changed to FACU, therefore dominant vegetation is no longer hydrophytic.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laevigata	15	Y	FACW
2. Quercus lobata	30	Y	FACU
3. Quercus wislizeni	5	N	UPL
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armenicus	30	Y	FACU
2. Phytolacca americana	3	N	FAC
3.			
4.			
5.			
	33	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Bromus diandrus	2	Y	UPL
2. Torilis arvensis	5	Y	UPL
3. Toxicodendron diversiloba	5	Y	UPL
4.			
5.			
6.			
7.			
8.			
	12	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 15	x 2 = 30
FAC species 3	x 3 = 9
FACU species 60	x 4 = 240
UPL species 17	x 5 = 60
Column Totals: 95 (A)	466 (B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/1	90	10YR 4/4	10	RM	PL	silty	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hard layer

Depth (inches): 12

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Edge of drainage area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 11a

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): C Lat: 38.81401 Long: -121.19138 Datum: NAD 83

Soil Map Unit Name: Andregg coase sandy loam, 2 to 9 percent slopes NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Northwest corner of site.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laevigata	30	Y	FACW
2. Populus fremontii	15	Y	FAC
3.			
4.			
	45 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armenicus	70	Y	FACU
2. Rosa sp.	3	N	Unk.
3.			
4.			
5.			
	73 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Festuca perennis	5	Y	FAC
2. Cyperus eragrostis	1	N	FACW
3. Festuca bromoides	2	Y	FAC
4.			
5.			
6.			
7.			
8.			
	8 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 11a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	90	10YR 4/6	10	C	PL	silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: hard layer

Depth (inches): 12

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): ___

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Depression.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 11b

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): C Lat: 38.81404 Long: -121.19121 Datum: NAD 83

Soil Map Unit Name: Xerorthents, placer areas NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armenicus	20	Y	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Trifolium hirtum	20	Y	UPL
2. Centaurea solstitialis	30	Y	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species 20	x 4 =	80
UPL species 50	x 5 =	250
Column Totals: 70 (A)		330 (B)

Prevalence Index = B/A = 4.71

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 11b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	100					silty	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ✓ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 12a

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): C Lat: 38.81271 Long: -121.19116 Datum: NAD 83

Soil Map Unit Name: Andregg coarse sandy loam, 2 to 9 percent slopes NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

Graded strips of vegetation for fire protection.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Bromus diandrus	30	Y	UPL
2. Bromus hordeaceus	20	Y	FACU
3. Trifolium hirtum	10	N	UPL
4.			
5.			
6.			
7.			
8.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 12a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100					silty	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 6201 Horseshoe Bar Road City/County: Loomis/Placer Sampling Date: 11/19/2013

Applicant/Owner: Tulip Asset LLC State: CA Sampling Point: 12b

Investigator(s): Kirk Vail Section, Township, Range: S10, T11N, R7E Rocklin, California USGS 7.5-minute quadrangle

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): C Lat: 38.81250 Long: -121.19109 Datum: NAD 83

Soil Map Unit Name: Andregg coarse sandy loam, 2 to 9 percent slopes NWI classification: Riverine Seasonal Wetl

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

Southwestern corner.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus fremontii	33	Y	FACW
2. Quercus lobata	10	Y	FACU
3. Quercus wislizeni	5	N	UPL
4.			
	48	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus armenicus	30	Y	FACU
2. Salix lasiolepis	70	Y	FACW
3.			
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 103	x 2 =	206
FAC species	x 3 =	
FACU species 40	x 4 =	160
UPL species 5	x 5 =	25
Column Totals: 148 (A)		391 (B)

Prevalence Index = B/A = 2.64

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 12b

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	90	10YR 3/4	10	C	PL	silty	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C — Preliminary Jurisdictional Determination Form

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): March 27, 2014

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Foothill Associates
590 Menlo Drive, Suite 5
Rocklin, California 95765

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OP-R-

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: California County: Placer City: Loomis
Center coordinates of site (lat/long in degree decimal format):
Lat. 38.82 ° N, Long. -121.18 ° W
Universal Transverse Mercator: m Easting (x) m Northing (y)
Name of nearest waterbody: Secret Ravine Creek

Identify (estimate) amount of waters in the review area:
Non-wetland waters: linear feet: width (ft) and/or acres.
Cowardin Class:
Stream Flow:
Wetlands: 1.13 acres.
Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal:
Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☐ Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA: **Data reviewed for preliminary JD** (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☐ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☐ U.S. Geological Survey map(s). Cite scale & quad name:
- ☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☐ Photographs:
  - ☐ Aerial (Name & Date):
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☑ Other information (please specify): See Attached.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining the signature is impracticable)